



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

	p. c.
Hygroscopic moisture	0.21
Volatile hydrocarbons	7.66
Ash (light gray)	5.35
Free carbon (by difference)	86.78
Sulphur (probably trace)	not determined
Iron (under 1 p. c.)	not determined

The lustre resembles that of some Schuylkill County anthracite.

JANUARY 23.

The President, Dr. RUSCHENBERGER, in the chair.

Fifty-eight members present.

JANUARY 30.

The President, Dr. RUSCHENBERGER, in the chair.

Thirty-one members present.

The resignation of F. W. J. Wylie as a member was read and accepted.

The following papers were presented for publication :—

“On Certain Excrementitious Deposits from the West.” By H. W. Henshaw.

“The Valsei of the United States.” By M. C. Cooke.

In conformity with Art. III, Chap. V, of the By-Laws, Jos. Willcox, Wm. S. Vaux, Rev. E. R. Beadle, Jos. Leidy, Chas. F. Parker, W. S. W. Ruschenberger, E. Goldsmith, Persifor Frazer, Jr., Wm. H. Dougherty, Theo. D. Rand, Clarence S. Bement, and Chas. C. Phillips were constituted the Mineralogical Section of the Academy of Natural Sciences of Philadelphia.

On Copper-bearing Rocks of the Mesozoic Formation.—Prof. PERSIFOR FRAZER, Jr., remarked that the existence of copper in the shales and sandstones of the Mesozoic era has long been known, and many of the copper industries derive their material from such sources. The whole of the band of micaceous and specular iron ores which lies along the northwestern border of the New Red Sandstone is saturated with copper salts, and cupriferous strata are frequently found among the rocks of the central portions of the basin.

One of the latter recently discovered lies about five miles east of the town of Gettysburg, at the hamlet of Bonnaughton or “Bunnytown,” as it is pronounced.

About 300 yards south of Mr. Liver's house, in a field, is an excavation made in Sept. 1876. While cutting off the corn, numbers of outcrop specimens of malachite were observed strewn over the surface of the ground. The rocks here are very much broken. The most homogeneous of them consist of a red sandstone, which is hard and compact, regarded in large blocks, but the latter are intersected by innumerable cleavage planes.

The general dip is about N.W. 30°. The cupriferous strata are about one foot thick, while the clay and rocks both above and below this are much impregnated with copper. Some of the accompanying rock appears to be calcareous, with small prisms of perfectly transparent quartz.

In the sandstone are pits showing the section of cubes of pyrite more or less hydroxidized.

The strike of these cupriferous measures seems to extend at least a mile on either side.

The portion which might be called a bed vein of copper ore was, as is said, about 1 foot thick. That is to say, that the decayed argillaceous material composing this foot was sufficiently green to render it worthy of being called an ore.

This seam was selected and averaged, and submitted to three determinations of the contained copper.

The following is the record:—

Insoluble silicious residue	p. c.
Sesquioxide of iron present (over 5 p. c.)	79.73
Copper by electrolysis	2.65

While on this subject, it may not be inappropriate to say one word as to the readiest methods of determining copper.

Of the various methods of *indirect* determination, but one was selected (viz., that of Rose) for comparison with the results obtained by precipitation of metallic copper on a tared platinum dish.

The results follow:—

		p. c.	mean.
Cu	{ by Rose's method ¹	2.55	2.53
	{ by Pfaf's method ²	2.40	
	{ by Luckow's method ³	2.65	

The difficulties experienced in the practical use of the second of these methods, when a large number of analyses are to be undertaken in a limited time, are very great. The solution of the zinc in a liquor strongly saturated with salts is slow and irregular; towards the close of the operation, small pieces of

¹ Precipitating in acid solution by sulphydric acid, and igniting with excess of sulphur.

² Precipitating in acid solution by zinc. There was a slight loss of copper in this analysis.

³ Precipitating by the battery in acid solution.